MODEL OF MANAGEMENT AND ALLOCATION OF FINANCIAL RESOURCES TO REVERSE REGIONAL DISPARITIES IN THE STATE OF PUEBLA, MEXICO.

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In Mexico run major efforts to reduce regional and local disparities through public resources allocation models. However, vast regions are still passing through marked economic and social inequalities. The study suggests that in the local and regional policy of the European Union, is possible to find the principles and elements to reduce the social and economic disparities in Mexico. It employs a diagnosis methodology of the 29 municipalities with the highest regional imbalances in the State of Puebla; the construction of a financial resources implementation and management model and its contrast in three municipalities of the Sierra Norte, the Sierra Negra and the Mixteca Poblana regions. A set of basic principles integrate the designed model; financial solidarity, equality and sustainable development, concentration, cooperation, monitoring and evaluation. The results show the model better impact on the local and regional inequalities if the following basic elements are considered; accuracy of the State of Puebla regional policy objectives, financial resources allocation, selection of a territorial base, territorial resources distribution and programming.

Keywords: Financial resources, economic and social inequalities, regional development.

Introduction

México is a country characterized by social and economic local and regional disparities. Around this problem, diverse programs, funds, and projects have been addressed to allocate financial resources for education, healthcare, housing, among other areas. This effort has been important; however, the model used to reduce regional imbalances has not rendered the expected results. This scenario demands the design and implementation of a new model of management and allocation of financial resources in order to reduce regional disparities in the state of Puebla. This model includes: 1) stakeholders’ participation in actions and measures affecting marginality levels, 2) design of an investment proposal for addressing financial resources to basic infrastructure, human capital building, and related projects to productive aspects, 3) design of a distribution formula that considers social marginality for bigger budget allocations, 4) a negotiation proposal with state authorities, and 5) a proposal for implementation, evaluation, and transparency in resource use. In this paper model background, methodology aspects and steps for model construction are described.

Model implementation background

Social and economic lagging problems that persist in Puebla State are considered for some people to be placed in the context of financial resource lacking to alleviate these problems. Others argument that this problematic is related to lack of actors' participation in the actions planning process. Such actors can be students, parents, teachers, and collectives such as...
community, academic, and philanthropic organizations, unions, social movements, and political parties (Astudillo, 2005; Sánchez, 2006).

According to Caballero (2006), these lagging are more related to how to secure the best use of resources addressed to reduce marginality indices. However, in other places it has been demonstrated that lacking in beneficiaries participation in the planning process of actions is the origin of these economic and social disparities. This scenario tends to be more acute when is used as a model for planning for managing and allocating public resources in policy analysis (Cazorla, 2004).

The author heads a research team in the Department of Projects and Planning in the Universidad Politécnica de Madrid (UPM). This team uses the planning model as Social Learning proposed by Friedmann (2001) to compare its components. In this comparing process, they conclude that due its features (bottom up decision making process, and for considering the involved population) this model represents an alternative model for actions planning that can contribute to reverse marginality indices in México and in the state of Puebla.

In México important efforts are made to reduce regional and local disparities. However, in vast regions, especially those with indigenous population are still passing through marked economic and social inequalities, said educational level, healthcare, housing, and income below national and state average. These lagging impact population capacity for improving their access to food and other goods and services, and placing them in the highest levels of marginality and social lagging. A review of different proposals in México for reducing regional disparities, and also from those experiences derived from the European Union, set the elements that support the design and implementation of a model for improving the use of public resources.

Recently in Mexico there are diverse points of view about strategy design to face the regional and local inequality problem, which affects a big proportion of the Mexican population. In the academic and in the politic arenas it is pointed that Mexico needs experiences from other places, which results show that it is possible to approach to a real convergence of regions and localities.

In the scholar discussion context, Calva (2007) argues that before socioeconomic inequalities of a big proportion of the Mexican population the pragmatic experience of the regional policy implemented in the European Union should inspire the design of an integrated policy for regional development in México. In the same way, Ruiz (2005) proposes a new model of regional development that includes some established components of regional and local policy in the EU, which he considers as the best elaborated.

In the politic side, Cardenas (2007) makes an analysis between Mexico and the U.S.A. Particularly about the North American Free Trade Agreement (NAFTA), argues that the Mexican government should purpose to its two partners in the agreement the sign of an addendum for cooperation not only on trade matter, but also on social issues, production and infrastructure, with the main objective of eliminate social differences and economic asymmetries, through the creation, among others, of special investment funds for development, following the European example to make real those new policies.

From these two contexts it is suggested the addition of present elements in the context of the regional and local policy of the EU. However, it is useful to ask what the most important features of this policy are that allow the EU to reduce regional disparities? Among them 1) justification of the regional policy, 2) definition of territorial objectives, 3) generation of Structural
Funds, the main financial instrument of the EU for addressing financial resources to less favored regions, 4) creation of an institutional architecture for operating the generated initiatives, and 5) a set of directive principles to support the use of resources coming from the Structural Funds (Yagüe, 2007). The instrumentation of regional policy regarding these basic elements allow countries called from the cohesion, Spain, Portugal, Ireland, and Greece to increase their per capita income once they were incorporated to the European Communities. It is worth to say that 50 years before Mexico had a per capita income bigger than Spain and Portugal. The average income today in Spain is two times and in Portugal is 80% bigger than the Mexican income (Rodriguez, 2004). These changes experienced by European countries have not occurred without the Structural Funds (Comisión Europea, 1999, 2007).

Social and economic marginality in the State of Puebla

Marginality levels in the State of Puebla persist despite federal, state, and municipal governments address financial resources to reverse it in the context of fiscal decentralization started approximately 15 years ago (Banco Mundial, 2006).

Marginality levels of the 217 municipalities in Puebla are analyzed according to marginality established by the National Council of Population (CONAPO). According to this government agency in 2000, 78 municipalities in the state showed high levels of marginality, 28 of them were classified as very high marginality, 37 as high, 11 as middle, none as very low, and two as low (CONAPO,200, CONEVAL, 2007). These data show that changes occurred in marginality levels in the municipalities of Puebla in the 2000-2005 period are few significant, due to in five years only eight municipalities descended from very high marginality to high marginality, and in the other categories there were no changes registered.

When marginality problem in Puebla is faced, the following panorama can be observed. In terms of food poverty the data show a minimum of population in this category is 34% and the highest is 67%. Regarding capabilities poverty the minimum is 45% and the maximum is 75%. In patrimonial poverty the percentage varies from 69% to 89%. In terms of educational lagging the data show some municipalities with 40% of the population as illiterate. In some others this proportion can reach 88% of the population with incomplete elementary school. Regarding healthcare a very high proportion (88%) has no access to these services. This situation is due to the lack of medical staff and the lack of healthcare facilities to cover the existing.

The Branch 33 Funds: Federal Allocations for Federative Entities and Municipalities: Financial resource allocation strategy in Mexico

To cope with this problem, 15 years ago started in Mexico a decentralization process to transfer financial resources to the population with strong economic and social lagging. In the context of this decentralization the Branch 33 is created and denominated Federal Allocations for Federative Entities and Municipalities, the most important financial instrument of the federal government for addressing financial resources to these contexts with high and very high social lagging. The set of funds that form the Branch 33 are: Allocations Fund for Basic Education and Normal (FAEB), Allocations Fund for Health Services (FASSA), Allocations Fund for State and Municipal Social Infrastructure (FAIS), Allocations Fund for Municipalities and Distrito Federal Strengthening (FORTAMUN), Multiple Allocations Fund (FAM), Fund for Technology and Adult
Education (FAETA), and the Fund for Public Safety (FASP). With these financial instruments, states and municipalities of the country would have bigger abilities for maintaining and improving the provision of goods and services to the population, independent variables of the local and regional development (Sour, 2004; Barceinas, 2002; Cabrero, 2004).

FAIS is third in importance and its difference from the first and second is that FAIS has two action areas, state and municipal. Financial resource distribution by state is made in a direct relationship to marginality indices and is addressed to cover laggings in water supply, sewage, municipal urbanization, rural electrification, health basic infrastructure, education, housing improvement, rural roads, and rural productive infrastructure (INAFED, 2007; Ruiz, 2005).

Puebla is among the states that receive more benefits from the Infrastructure Fund. During 1988-2004 Puebla received from FAEB MX$36,217 millions, from FASSA received MX$5,480 millions, and from FAIS MX$9,806 millions (INAFED, 2007). For the year 2008 Puebla will receive from FAIS MX$2,998.6. Puebla was fifth only after Chiapas, Veracruz, Oaxaca and State of Mexico, which will receive MX$4,230.6 millions, MX$4120.9 millions, MX$3,572.2 millions, and MX$3088.9 millions, respectively (Centro de Estudios de Finanzas Públicas, 2007).

At municipal level FAIS represents an important income source. In the 78 municipalities with high and very high marginality the state government of Puebla during 1988-2004 allocated financial resources, which amounts represented in 1988, 52% of the total addressed by FAIS in the 217 municipalities of the state. This proportion remained in 50% from 1999 to 2001, and in 46% since 2002 to 2004. Reports about the fate of these resources and empiric evidences point that in order of importance were addressed to municipal urbanization, water supply, education, and rural electrification, among others. With these transfers federal, state, and municipal governments look for reverse marginality indices in each one of the municipalities that conform the state.

An analysis on how is distributed this proportion among the 78 municipalities, the data show that this distribution tend to favor with bigger amounts municipalities with bigger social and economic disparities. However, still persist some aspects that make difficult to reverse marginality indices, some of them are resource concentration in the municipal town, decreasing amount per inhabitant. In other places this situation does not occur, as is the case of the EU where the amounts per inhabitant not only do not decrease but also increase. This is demonstrated by the different periods of financial programming: 1989-1993, EUR$143; 1994-1999, EUR$187; and 2000-2006, EUR$217 (CCE, 2002).

On the other hand, the amount given to 78 municipalities with high and very high marginality in Puebla in the 1989-2004 period was as follows: the higher average amount per inhabitant was MX$500 and the lower was MX$120. Other important aspect is the amount addressed between poor municipalities and those with better social and economic levels. This is the case of Puebla city, which receives between MX$30 and 60 million, in contrast the amount for poor municipalities hardly reaches MX$7 million. This situation widens more the gap between poor and non poor municipalities. Population as central variable to allocate these resources at municipal level overweighs criteria about social lagging (Regalado and Díaz-Puente, 2008).
A new model for financial resource allocation and management

The model; principles and elements for its implementation

With these results, it is possible to design a new model for financial resource allocation and management in order to reverse marginality levels in the municipalities of Puebla State. The elements considered in this new model are showed in the figure 1.

Figure 1. Model basic elements

A set of basic principles is used in order to instrument each one of the elements as is shown in figure 2. For objectives definition principles of equality and sustainable development, and complementarities and coherence are proposed. For financial resource allocation element principles of thematic concentration and co-financing and addition are used. Regarding territorial base principles of subsidy and cooperation are utilized. For territorial distribution of resources financial solidarity is used as basic principle, this mean to address more investments to those municipalities with bigger marginality indices. And for programming, monitoring and evaluation, and efficacy are used as principles.
Model implementation phases

The proposed phases are three. In the first phase a set of variables are defined to guide the diagnosis in very high marginality municipalities in Sierra Norte, Sierra Negra and Mixteca regions. In a second phase, the model is tuned for its implementation in these municipalities. Finally, the third phase the model is implemented in three municipalities, one for each region.

First phase: Diagnosis on social and economic laggings in very high marginality municipalities

Problems related to social and economic laggings in indigenous regions are faced under different approaches. One of them is the data collection and analysis in a geographic area for general and specific diagnosis about productive subjects. Using this approach, research was made by Colegio de Postgraduados in the Sierra Norte of the state of Puebla (Macías and Suárez, 2007; Mora, 2004).

This phase takes some elements that are present in these methodology approaches. However, in this case a specific proposal is made on how to make the diagnosis about social and economic problems in very high and high marginality municipalities. This approach includes a set of social and economic variables and others related to basic infrastructure, human capital building and variables about the productive environment. Also are considered schemes for addressing financial resource by federal, state, and municipal governments as public policies for reversing marginality indices in very high and high marginality in these municipalities.
Second phase: Model tuning for financial resource allocation and management for reverse marginality indices

The proposed model tuning for financial resource allocation and management for reverse marginality indices was made from analyzing models of the EU and México used for addressing financial resource to regions with bigger social and economic laggings. However, for its adaption and implementation to reverse marginality indices it needs to be tuned. The variables used to tune up the model are 1) definition of objectives for municipal development, 2) selection of a territorial base, 3) financial resource allocation, 4) territorial distribution of resources, 5) resource programming, and 6) about principles considered for model basic elements implementing.

Third phase: Proposal of model simulation in three municipalities

The implementation and management of the model in three municipalities try to demonstrate that it is possible to reduce disparities in this scenario if the elements and basic principles are considered. Next the proposal of simulation in three municipalities is described.

Objectives definition. To reverse social and economic laggings is the objective pursued by the model implementation. This objective is in line with the Development Plan for Puebla State objectives, which looks for improving living standards of the population with bigger territorial disparities.

Resource allocation. Thematic concentration and co-financing and addition principles become the orienting elements for a better financial resource allocation in the municipalities. About thematic concentration, the model suggests a bigger resource concentration in areas in which regional convergence is larger such as infrastructure development, human capital building, and development of the productive environment. Municipal participation on this strategic areas with own resources mixed with other financial sources will allow a better allocation of financial resources.

Selection of a territorial base. For model implementation, one municipality for each one of the three regions was selected. The selected municipalities were those showing higher proportions of social and economic lagging. From an arithmetic weighting of a variables set related to education, health, and poverty level, a percent of social lagging was extracted and the social lagging index calculated by Ramírez (2007). This procedure indicated that Eloxochitlan in the Sierra Negra region has 65% of its population in social lagging. From the total population this proportion represents 7,371 inhabitants. Regarding to Huhuetla, municipality located in the Sierra Norte, 66% of the population is in social lagging, and this proportion represents 11,536 inhabitants. Finally, the municipality of Atexcal in the Mixteca region, has 1752 inhabitants in social lagging, which represents 55% of the population.

Territorial distribution of resources. After territorial selection, the model suggests a resource distribution. Territorial concentration and financial solidarity principles have been clues for success in achieving a larger convergence into the regional policy of the EU. Based on this experience the model will look for a larger concentration of resources in the defined areas and the purpose of address 70% of the Branch 33 resources to the municipal population with bigger laggings.
Programming. The model suggests a programming proposal on financial resource using resources from the Allocations Fund for Municipal Social Infrastructure addressed to the municipalities under study. A contrast is made between the traditional way to distribute financial resources and the model proposition. In the first case, the channeled amount is observed considering population variable. Under this criteria, financial resources increase according to inhabitants numbers in the municipalities. This distribution model considers the first three years 2006, 2007, and 2008. For the next years a simulation on financial resource programming is used considering the elements in the new model of allocation and management: 1) population in social lagging in each municipality, and 2) the distribution of 70% of the resources considering the population with larger social lagging. In figure 3 is shown the pattern in resource allocation. Apparently, the traditional model shows advantages, as is shown in the figure 3. However, it is worth to make some precisions. From 2006 to 2008 the sum of total resources received by the municipality are graphed. This behavior points an increase in the channeled resources. Now, from 2009 to 2012 the resource distribution is made based on population percent in social lagging. This percent is used to determine total population in the municipality with lacking in basic services (education, housing, and health) and on which the 70% of resources is allocated. It is important to remark that the simulation for 2009-2012 is made taking as a base year 2008 for resource addressing. Differences between the two models apparently are negligible. However, as a matter of fact under the new model the population tends to be more benefited, especially those with marginality problems, because they receive larger amounts, while the rest of population with less social and economic problems 30% of total resources for the municipality is distributed.

![Figure 3. Programming of financial resources with and without the model](image)

Conclusions

A model with these features and in a political environment, with social and economic conditions such as those described in the present case, should be gradually adapted and taking in account the mentioned pre-requisites. This study suggests a series of phases for its
implementation with the objective to identify scenarios that allow the analysis and improvement of model implementation.

Financial resource allocation and management considering principles and elements that according to the model, contributes to reverse marginality levels in the three municipalities under study.

Bibliography


MORA, P, M; NUÑEZ, T, R; RUIZ, B, A; VALADEZ, R, M; OCAMPO, M, J (1994) Diagnósticos de los sistemas de producción agropecuarios de la sierra norte alta de Puebla. Instituto Nacional Indigenista (INI), Centros de Enseñanza, Investigación y Capacitación para el Desarrollo Agrícola Regional (CEICADAR) Unidad Puebla del Colegio de Postgraduados (CP), Puebla, México.

RAMIREZ, V. B. (2007) Comunicación personal para determinar el porcentaje de la población que presentan rezagos económicos y sociales en los municipios bajo estudio.


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